

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the above-identified application.

Listing of Claims

1. (Currently Amended) A method comprising:
performing a set of operations on a first data store, wherein
each operation of the set of operations on the first data store performs at least one of
producing modified data from data in the first data store, and
changing a configuration of the first data store, and
the performing the set of operations occurs during copying of a procedure in which
selected data in the first data store is copied to a second data store; and
causing the set of operations to be performed on the second data store, wherein
if the set of operations on the first data store produces the modified data and if a portion
of the modified data is not included in the selected data copied to the second data
store, the second data store comprises will be updated to include a copy of the
portion of the modified data after in response to performance of the set of
operations is performed on the second data store;
wherein the set of operations comprises:
an ordered subset of the set of operations, wherein
operations in the ordered subset of operations are performed on both the first data store
and the second data store in a sequential order.
2. (Original) The method of claim 1 wherein
one operation of the set of operations restores a portion of first data in the first data store from
third data in a third data store; and
the causing the set of operations to be performed on the second data store comprises
causing a corresponding portion of second data in the second data store to be restored
from fourth data in a fourth data store, wherein

the portion of the first data and the portion of the second data are the same after
the restoring the portion of the first data and after the causing the
corresponding portion of the second data to be restored.

3. (Original) The method of claim 1 wherein
one operation of the set of operations synchronizes first data in the first data store with third data
in a third data store; and
the causing the set of operations to be performed on the second data store comprises
causing second data in the second data store to be synchronized with fourth data in a
fourth data store corresponding to the third data store, wherein
the first data and the second data are the same after the synchronizing the first
data and after the causing the second data to be synchronized.

4. (Original) The method of claim 1 wherein
one operation of the set of operations changes the configuration of the first data store by creating
a first snapshot data store related to the first data store wherein
a first snapshot of first data in the first data store is stored in the first snapshot
data store; and
the causing the set of operations to be performed on the second data store comprises
causing a second snapshot data store related to the second data store to be created,
wherein
a second snapshot of second data in the second data store is stored in the second
snapshot data store, and
the first snapshot and the second snapshot comprise data that are the same.

5. (Original) The method of claim 4 further comprising:
establishing a replication relationship between the first snapshot data store and the second
snapshot data store after the second snapshot data store is created, wherein
the replication relationship causes subsequently modified data in the first snapshot data
store to be included in selected snapshot data copied to the second snapshot data
store.

6. (Currently Amended) The method of claim 5 wherein
the subsequently modified data are copied to the second snapshot data store when the selected
data are copied to the second data store.

7. (Original) The method of claim 1 wherein
if at a first point in time during the performing the set of operations,
a first operation of the set of operations is performed on the first data store, and
the first data store comprises first data when the first operation is performed on the first
data store, then
at a second point in time,
when the first operation is performed on the second data store,
the second data store comprises a copy of the first data.

8. (Original) The method of claim 1 wherein
if at a first point in time during the performing the set of operations,
the first data store comprises first data, then
at a second point in time,
when the second data store represents the first data store at the first point in time,
the second data store comprises a copy of the first data.

9. (Cancelled)

10. (Currently Amended) The method of claim 1 wherein
producing the modified data occurs at a specified point in the sequential order on the first data
store,
the specified point is between a first respective point in the sequential order and a second
respective point in the sequential order,
the first respective point and the second respective point are adjacent in the sequential order, and
the causing the set of operations to be performed on the second data store comprises
~~causing the producing the updating the second data store to include~~ the copy of the
~~modified data to occur occurs~~ at the specified point in the sequential order ~~on the~~
~~second data store.~~

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Original) The method of claim 1 wherein
the causing the set of operations to be performed on the second data store comprises
causing at least one command that performs the set of operations to be executed on the
second data store.

15. (Original) The method of claim 1 wherein
the selected data comprises first data modified as a result of a write operation.

16. (Original) The method of claim 15 wherein
the set of operations does not include the write operation.

17. (Original) The method of claim 1 wherein
the selected data further comprise a portion of a snapshot of first data stored in the first data
store, and
the portion of the snapshot is modified as a result of a second write operation.

18. (Original) The method of claim 17 wherein
the set of operations does not include the second write operation.

19. (Original) The method of claim 1 wherein
the second data store further comprises a copy of the selected data after copying the selected data
to the second data store.

20. (Original) The method of claim 1 further comprising:
upon failure of a primary node associated with the first data storage,
identifying a portion of the selected data in the first data store, wherein
the portion has not been copied to the second data store, and
causing only the portion to be copied to the second data store such that the first data and
the second data are the same.

21. (Original) The method of claim 1 further comprising:
identifying second modified data in the first data storage, wherein
the second modified data were produced before the set of operations was performed on
the first data storage and after the set of operations was performed on the second
data storage, and
the second modified data are not included in the selected data copied to the second data
store; and
causing only the second modified data to be copied to the second data store such that the second
data and the first data are the same.

22. (Currently Amended) A system comprising:
performing means for performing a set of operations on a first data store, wherein
each operation of the set of operations on the first data store performs at least one of
producing modified data from first data in the first data store, and
changing a configuration of the first data store, and
the performing the set of operations occurs during copying of a procedure in which
selected data in the first data store is copied to a second data store; and
causing means for causing the set of operations to be performed on the second data store,
wherein
if the set of operations performed on the first data store produces the modified data and a
portion of the modified data is not included in the selected data copied to the
second data store,
second data in the second data store is updated to include includes a copy of the
portion of the modified data after in response to performance of the set of
operations is performed on the second data store;
wherein the set of operations comprises:
an ordered subset of the set of operations, wherein
operations in the ordered subset of operations are performed on both the first data
store and the second data store in a sequential order.

23. (Cancelled)

24. (Currently Amended) The system of claim 23 22 further comprising:
second causing means for causing the producing the copy of the modified data to occur at a
specified point in the sequential order on the second data store, wherein
producing the modified data occurs at the specified point in the sequential order on the
first data store,
the specified point is between a first respective point in the sequential order and a second
respective point in the sequential order,
the first respective point and the second respective point are adjacent in the sequential
order.

25. (Original) The system of claim 24 further comprising:
inserting means for inserting a command in the selected data copied from the first data store to
the second data store to produce the copy of the modified data at the specified point.

26. (Original) The system of claim 23 wherein
the set of operations further comprises:
an unordered subset of the set of operations, wherein
the unordered subset is performed at a specified point in the sequential order,
the specified point in the sequential order is between a first respective point in the
sequential order and a second respective point in the sequential order,
the first respective point is adjacent in the sequential order to the second
respective point, and
each operation in the unordered subset can be performed concurrently with
respect to other operations in the unordered subset.

27. (Currently Amended) A ~~computer readable~~ computer storage readable medium comprising:
performing instructions configured to perform a set of operations on a first data store, wherein
each operation of the set of operations performed on the first data store performs at least
one of
producing modified data from first data in the first data store, and
changing a configuration of the first data store, and
performing the set of operations occurs during ~~copying of~~ during a procedure in which
selected data in the first data store is copied to a second data store; and
causing instructions configured to cause the set of operations to be performed on the second data
store, wherein
if the set of operations performed on the first data store produces the modified data and a
portion of the modified data is not included in the selected data copied to the
second data store,
updating the ~~second data in the~~ second data store to include includes a copy of the
portion of the modified data ~~after~~ in response to performance of the set of
operations ~~is performed~~ on the second data store; wherein
the set of operations comprises:
an ordered subset of the set of operations, wherein
operations in the ordered subset of operations are performed on both the
first data store and the second data store in a sequential order.

28. (Cancelled)

29. (Cancelled)

30. (Currently Amended) The computer-readable medium of claim 29 27 further comprising:

inserting instructions configured to insert a command in the selected data copied from the first data store to the second data store to produce the copy of the modified data at the specified point.

31. (Currently Amended) The computer-readable medium of claim 28 27 wherein the set of operations further comprises:

an unordered subset of the set of operations, wherein

the unordered subset is performed at a specified point in the sequential order,
the specified point in the sequential order is between a first respective point in the sequential order and a second respective point in the sequential order,
the first respective point is adjacent in the sequential order to the second respective point, and
each operation in the unordered subset can be performed concurrently with respect to other operations in the unordered subset.

32. (Currently Amended) A computer system comprising:

a processor for executing instructions; and

the computer-readable medium of claim 28, 27 wherein

the computer-readable medium is coupled to the processor.

33. (Cancelled)

34. (New) A method comprising:

performing a set of operations on a first data store, wherein

each operation of the set of operations on the first data store performs at least one of

producing modified data from data in the first data store, and

changing a configuration of the first data store, and

the performing the set of operations occurs during a procedure in which selected data in
the first data store is copied to a second data store; and

causing the set of operations to be performed on the second data store, wherein

if the set of operations on the first data store produces the modified data and if a portion
of the modified data is not included in the selected data copied to the second data
store, the second data store will be updated to include a copy of the portion of the
modified data in response to performance of the set of operations on the second
data store;

wherein one operation of the set of operations changes the configuration of the first data store by
creating a first snapshot data store related to the first data store wherein

the first snapshot of first data in the first data store is stored in the first snapshot
data store; and

the causing the set of operations to be performed on the second data store comprises

causing a second snapshot data store related to the second data store to be created,
wherein

a second snapshot of second data in the second data store is stored in the second
snapshot data store, and

the first snapshot and the second snapshot comprise data that are the same;
establishing a replication relationship between the first snapshot data store and the second
snapshot data store after the second snapshot data store is created, wherein

the replication relationship causes subsequently modified data in the first snapshot data store to
be included in selected snapshot data copied to the second snapshot data store.